

REMARKS

I. Introduction

With the cancellation without prejudice of claims 10 and 17, claims 8, 9, 11 to 16 and 18 to 22 are pending in the present application. In view of the foregoing amendments and the following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

II. Objection to the Claims

As regards the objection to claims 16 to 21 under 37 C.F.R. § 1.75, the Examiner will note that claims 16 and 18 to 21 have been amended herein without prejudice to depend from claim 15 and that claim 17 has been canceled herein without prejudice. It is therefore respectfully submitted that the present objection is moot, and withdrawal of this objection is respectfully requested.

III. Rejection of Claims 8, 9, 11 to 14 and 16 to 21 Under 35 U.S.C. § 112

Claims 8, 9, 11 to 14 and 16 to 21 were rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. While Applicants do not necessarily agree with the merits of this rejection, to facilitate matters, claim 8 has been amended herein without prejudice to recite that the metal donor powder includes a mixture of a first alloy having a donor metal content of 40% to 70% by weight and a second alloy having a donor metal content of 30% to 50% by weight. Support for this amendment may be found, for example, in original claim 10 and in the Specification at p. 4, lines 32 to 36 and p. 6, lines 25 to 36. Claims 9 and 11 to 14 depend from claim 8, claims 16 and 18 to 21 have been amended herein without prejudice to depend from claim 15, and claim 17 has been canceled herein without prejudice. In view of the foregoing, it is respectfully submitted that the present rejection has been obviated, and withdrawal of this rejection is respectfully requested.

IV. Rejection of Claims 8 to 12 and 14 to 21 Under 35 U.S.C. § 103(a)

Claims 8 to 12 and 14 to 21 were rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of U.S. Patent No. 5,215,785 ("Strasser et al.") and U.S. Patent No. 4,156,042 ("Hayman et al."). Applicants respectfully submit that the combination

of Strasser et al. and Hayman et al. does not render unpatentable the present claims for the following reasons.

As an initial matter, claims 10 and 17 have been canceled herein without prejudice, thereby rendering moot the present rejection with respect to claims 10 and 17.

The Office Action admits that Strasser does not disclose a mixture of alloys but alleges that it would have been obvious to combine the ALTiC and AlTi, allegedly disclosed by Strasser as alternatives for a powder mixture, because both powders are allegedly recognized as useful for the purpose of a donor powder. The Office Action references *In re Kerkhoven*, 626 F.2d 846, 850 (CCPA 1980) and alleges that it is well settled that “it is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose, in order to form a third composition to be used for the very same purpose.” Applicants respectfully submit that the mixture of alloys does not serve the “very same purpose” as the individual alloys used separately. In this regard the Specification states that “[u]nlike in Example 1, the metal donor powder, which forms approximately 20% by weight of the powder mixture, comprises two fractions” and further states that “[t]his measure can be used to optimize the coating process in such a manner that first of all the fraction with the lower Al content is depleted, but the coating process is continued by the fraction with the higher Al content” so as to “increase the ductility of the layers on the inner surface of the guide vane.” See p. 6, lines 25 to 36. Therefore, the purpose of the mixture of alloys, which is to provide for a coating having variable properties along a cross section, e.g., higher ductility on the inner surface of the guide vane, is different than the purpose of the individual alloys, which is to provide a uniform coating on the object being coated.

Notwithstanding the above, claims 8 and 15 have been amended herein without prejudice to recite that the metal donor powder includes a mixture of a first alloy having a donor metal content of 40% to 70% by weight and a second alloy having a donor metal content of 30% to 50% by weight. Claim 8 has further been amended herein without prejudice to recite that depletion of the metal donor in the first and second alloys takes place in steps with a time delay, and claim 15 has further been amended herein without prejudice to recite that a coating formed on the hollow body has a higher ductility on inner surfaces of the hollow body. Support for these amendments may be found, for example, in original claim 10 and in the Specification at p. 4, lines 32 to 36 and p. 6, lines 25 to 36. Applicants respectfully

submit that the combination of Strasser et al. and Hayman et al. does not render unpatentable the present claims, as amended.

Hayman et al. purportedly relate to a process for coating articles such as turbine blades in a pack-cementation process. Hayman et al. state that the coating material may be chosen from a group: aluminum, chromium, titanium, zirconium tantalum, niobium, yttrium, rare earth metals, boron and silicon together with a halide activator. In the first four examples provided by Hayman et al., the powder mix is stated to include AlF_3 , Al and Al_2O_3 . See col. 5, line 21 to col. 6, line 32. In a fifth example provided by Hayman et al., the powder mix is stated to include $NaCl$, Al and Al_2O_3 . See col. 6, line 39. In a sixth example provided by Hayman et al., the powder mix is stated to include NaF , Al and Al_2O_3 . See col. 6, line 51.

Strasser et al. purportedly relate to a method for the powder pack coating of hollow bodies. The hollow bodies are stated to be coated with a powder mixture including 80 parts by weight Al_2O_3 filler powder material and 40 parts by weight donor and activator powder material. See col. 3, lines 62 to 66.

Nowhere does the combination of Strasser et al. and Hayman et al. disclose, or even suggest, that a metal donor powder includes a mixture of a first alloy having a donor metal content of 40% to 70% by weight and a second alloy having a donor metal content of 30% to 50% by weight, as recited in amended claims 8 and 15, let alone that depletion of the metal donor in the first and second alloys takes place in steps with a time delay, as recited in claim 8, or that a coating formed on the hollow body has a higher ductility on inner surfaces of the hollow body, as recited in claim 15. In the one example provided by Strasser et al., the weight donor is stated to be made from $AlTi$ or $AlTiC$. See col. 3, line 66. Further, as indicated above, in the six examples provided by Hayman et al., each powder mix contains only a single alloy. Therefore, the combination of Strasser et al. and Hayman et al. does not disclose all of the features recited in amended claims 8 and 15.

To establish *prima facie* obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Second, there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim limitations. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). Since

the combination of Strasser et al. and Hayman et al. does not disclose, or even suggest, all of the limitations of amended claims 8 and 15, as more fully set forth above, it is respectfully submitted that the combination of Strasser et al. and Hayman et al. does not render unpatentable amended claims 8 and 15.

As for claims 9, 11 and 12, which depend from claim 8 and therefore include all of the limitations of claim 8, Applicants respectfully submit that the combination of Strasser et al. and Hayman et al. does not render obvious these dependent claims for at least the same reasons provided above in support of the patentability of claim 8. *In re Fine, supra* (any dependent claim that depends from a non-obvious independent claim is non-obvious).

As for claims 16 and 18 to 21, which depend from claim 15 and therefore include all of the limitations of claim 15, Applicants respectfully submit that the combination of Strasser et al. and Hayman et al. does not render obvious these dependent claims for at least the same reasons provided above in support of the patentability of claim 15. *Id.*

In view of all of the foregoing, it is respectfully submitted that the combination of Strasser et al. and Hayman et al. does not render unpatentable the present claims.

Withdrawal of this rejection is therefore respectfully requested.

V. Rejection of Claim 13 Under 35 U.S.C. § 103(a)

Claim 13 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Strasser et al., Hayman et al. and U.S. Patent No. 5,989,733 (“Warnes et al.”). Since claim 13 depends from claim 8 and therefore includes all of the limitations of claim 8, it is respectfully submitted that the combination of Strasser et al., Hayman et al. and Warnes et al. does not render unpatentable dependent claim 13 for at least the same reasons provided above in support of the patentability of claim 8. *Id.*

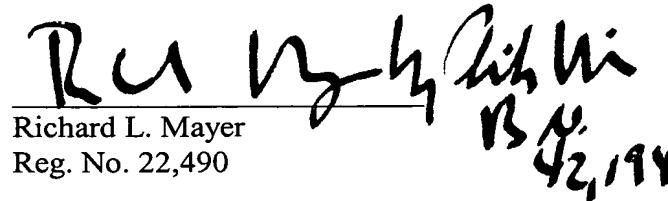
VI. Conclusion

It is therefore respectfully submitted that all of the presently pending claims are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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